

LASCA LEAVES



Los Angeles County Department of Arboreta and Botanic Gardens

Queen Anne Frolic

THE FOURTH BIENNIAL Queen Anne Frolic at the Los Angeles State and County Arboretum last September 23rd was, like its predecessors, a huge success. This most festive of Arboretum fund-raising affairs was attended by a record number of Foundation members and their guests and spouses, over a thousand in all, who arrived at 6 o'clock on a mild evening and stayed almost until midnight. When all receipts, including donations, were tallied and expenses deducted, the cause of the Hall of Environmental Education, the beneficiary of the event, was advanced by thirteen thousand dollars.

Frolic chairman Mrs. David Stevenson, vice chairman Mrs. David Malafronte, and Arboretum Superintendent John Provine put together a stylish program, beginning with the tasteful invitations and programs and continuing with the attractive table settings and well-received entertainment. Pre-dinner activities included interior tours of the Queen Anne Cottage, paddleboat rides on the lagoon, and tours of the grounds in antique cars supplied through Mr. Sig Caswell of the Horseless Carriage Club. Another mode of transportation that delighted guests was the award-winning, lighted, one-horse surrey owned and driven by Ms. Arlie Barton of Arcadia.

The dinner itself featured the now traditional barbecued beef prepared



Queen Anne Frolic guests enjoyed paddleboat rides on Lasca Lagoon.



Antique car buffs waited in front of the Queen Anne Cottage for a tour of the grounds in this 1910 six cylinder Stevens Duryea restored by Mr. Leo Plamondon of the Horseless Carriage Club.

Photos by William Aplin



Dinner tables were set up in the mall under the canopy of an old English oak, a California black walnut, and an American persimmon.



Buffet supper was served by staff members expert in carving beef.

by Director Francis Ching, accompanied by rice pilaf, potato salad, fruit salad and coleslaw. For dessert, each table had its own wine cake decorated with tiny chrysanthemums in the center and surrounded by a garland of ivy. Tables were lit by candles set in bases made of ordinary tin cans artistically shaped by blow torch and other means — the cannery art of Mr. David Stevenson and members of Los Ayudantes.

Music for dancing was provided by Tommy King and his orchestra and, as a special feature, singer Andy Russell entertained with hit songs of the forties. Another special attraction was the display of vintage bicycles and tricycles set up by Mr. Bob Trepanier of the High Wheelers, Inc.

Special thanks go to the Foundation volunteers and staff members whose cooperation and dedicated effort contributed so greatly to the success of the event.

Appointment

DR. MILDRED E. MATHIAS, emeritus professor of botany at UCLA and former director of that institution's botanic garden, has been named executive director of the American Association of Botanic Gardens and Arboreta. In announcing the appointment last July, the AABGA noted that Dr. Mathias would serve on a part-time basis, directing her efforts toward the development of an organizational plan for a future full-time executive office.

Dr. Mathias brings a unique background to her new task, a background which the AABGA officially recognized a year and a half ago by presenting her with an Award of Merit for her achievements in the fields of botany and horticulture. Her work as an administrator includes council chairman and president of the American Society of Plant Taxonomists, president of the Western Society of Naturalists, chairman of the International Society of

Horticultural Sciences Commission on Horticultural Nomenclature and Registration and, currently, president of the Pacific Division of the American Association for the Advancement of Science.

Dr. Mathias has been associated with the Los Angeles State and County Arboretum since 1958 when she was appointed to the first of three three-year terms as a member of the Board of Trustees of the California Arboretum Foundation. She continues as an honorary member of that board and generally maintains close contact with the affairs of the Arboretum.

First Prize at County Fair

THE LOS ANGELES County Fair is reputed to be the largest county fair in California, if not the nation. Each year it attracts well over a million visitors who come to see the many recreational and educational displays, including the flower and landscape show that draws hundreds of competitors.

Since entering the home landscape competition four years ago, the California Arboretum Foundation has walked away with a top prize each year and last year was no exception as they were again awarded a first prize. With an exhibition theme of a tropical home garden, the landscape display featured forty various types of specimen hanging basket plants including various orchids, abutilons, *Dioscoreae*, *Episcia*, *Cissus*, *Stapelia*, *Tradescantia*, *Davallia* and *Begonia*.

Congratulations are in order to Mrs. John Grivich, past president of the Foundation and currently a member of the Board of Trustees.

Special Award for Professional Gardening School

AS REPORTED in the previous issue of *Garden Magazine*, the professional gardening school recently started at the Los Angeles State and County Arboretum provides classroom and practical experiences for

those interested in making gardening and horticulture a professional career. The Los Angeles County Fair offered the eleven students an early challenge by making available to them two plots for home landscape displays. Eagerly accepting the challenge, the students pooled their ideas and labor in constructing pools, streams, hills, paths, retaining walls with split railroad ties, and, finally, the planting of a multitude of plants.

As a student wrote, "At last, the painstaking groundwork paid off as planting began. Excitement ran high as the two displays began to show an increasingly more finished appearance. The teepee was erected, spot lights were installed, the stream was cleaned, staghorn ferns and *Tillandsia* were placed in location, and suddenly, within two days, two dream gardens were created out of the imaginations of eleven horticulture students."

A happy ending to their efforts came with the winning of a Special Award ribbon.

Election

DEPARTMENT DIRECTOR Francis Ching has been elected incoming vice-president of the American Association of Botanic Gardens and Arboreta. Mr. Ching has been an active member of the organization for several years and a member of the AABGA board of directors for the past three years. He has been instrumental in developing the concept of a nationwide horticultural diploma for the AABGA and for initiating the active program. His election is further recognition by other gardens of the Association of the leadership and effort of the Los Angeles State and County Arboretum in not only furthering the idea of national gardening programs and standards, but in contributing curricula outlines and other concrete suggestions in the interest of educational public services programs.

New Tram

IN 1966, the California Arboretum Foundation donated a new 45-passenger minibus to the Los Angeles State and County Arboretum for use in the Arboretum's daily public tram-tour service. It cost \$16,500. Last September, some million-and-a-half miles and million-and-a-quarter passengers later, the minibus' status as the number one public vehicle on the Arboretum grounds was lost to another new people-mover, as the transportation people like to say, this one a 50- to 60-passenger tram also donated by the Foundation. It cost \$26,200, a relatively modest increase considering the general inflationary rise.

The new tram, called the Sunliner, is a more austere vehicle than the minibus. It is composed of a power unit built on a Jeep truck chassis having four-wheel drive, a six cylinder engine, and five fiberglass bench seats that accommodate four or five passengers each. The power unit tows a second unit having seven

bench seats. Both units may be boarded from either side. The vehicle is equipped with air brakes, lights to permit evening use, and the same public address system the manufacturer installs on a bus it sells for a hundred thousand dollars.

Following a satisfactory test run, the Sunliner was put into service while the old minibus was sent out for repairs and then returned for what no doubt will be another long run.

Theodore Payne Foundation

THE BOARD OF DIRECTORS of the Theodore Payne Foundation for Wild Flowers and Native Plants recently announced the election of John W. Provine, Arboretum superintendent, to the office of president during 1977-78.

Mr. Provine is a graduate of California Polytechnic State University at Pomona where he earned a degree in ornamental horticulture in 1965. He joined the Arboretum as a part-time student worker in 1958.

Following two years of military service, he returned to the Arboretum where he soon became nurseryman and then chief horticulturist. He was named superintendent in 1974. Mr. Provine is a past president of the American Begonia Society and a past president of the San Gabriel Branch of the American Begonia Society.

The preservation of California's wild flowers in their natural habitat is the basic purpose of the Theodore Payne Foundation which was formed in 1963 shortly before the death of Theodore Payne, a horticulturist and conservationist who is generally credited with having done more than anyone else in growing and cultivating interest in the flora of California. The Foundation maintains a museum-library and nursery in Sun Valley located just off the Golden State Freeway in San Fernando Valley. The public is invited to join in its many activities which include developing nature trails and a cactus garden and propagating and caring for native plants.



New Arboretum tram passes the Tallac Knoll waterfall.

GINGER: A Spice from the Orient



GINGER IS A SPICE obtained from the rhizomes of the true ginger plant, *Zingiber officinale*, which was cultivated in China and India about 2,500 years ago. Confucius, the Chinese philosopher and teacher, who lived from 551-479 B.C., is said to have been very fond of the spice and mentioned it in his *Analects*.

Ginger appeared in Europe among the Greeks and Romans not later than the first century A.D. Both Dioscorides and Pliny the Elder mentioned it in their writings, although they did not know its place of origin. It probably was brought to southern Europe from India by Arabian traders. Its Sanskrit name, "singibera" or "shingibera," soon became "zingiberi" in Greek and "zingiber" in Latin.

During the fourteenth century, ginger was, after pepper, the most common spice in Europe. In England, it is said to have cost 1 shilling 7 pence per pound, just about the price paid for a sheep. Most of the ginger arriving in Europe during this period came from Calicut in southwest India which was sending large quantities of it overseas.

The Portuguese took the ginger plant from India to West Africa and other parts of the tropics in the sixteenth century. Within a very short time, Portugal was able to get all the ginger it wanted at home from the island of Sao Tome and other possessions about the Atlantic. The Spaniards did the same. They introduced the plant to the West Indies



Zingiber officinale

and, by 1547, Jamaica was already exporting it to Europe in sizeable quantities, followed a little later by Barbados and Santo Domingo.

In the second part of the sixteenth century, gingerbread had become popular in England and on the Continent. It was a favorite confection of Queen Elizabeth I and her court and seems to have been readily available also to the common man. Shakespeare in his comedy, "Loves Labour Lost," Act V, Scene I, has Costard say to Moth, "An I had but one penny in the world, thou shouldst have it to buy gingerbread."

Zingiber officinale is a perennial herb that grows to four feet high. The leaves and flowers are borne on separate stems. The leaves are lanceolate, grasslike, alternate, arranged in two rows and have short stalks and long sheaths which stand away from the stem. The flowers, which are yellow-green and purple, are crowded in dense cone-like spikes at the apex of the flowering stems. The fruits are three-valved capsules with small black arillate seeds. The flowers and fruits, however, are rarely seen. For hundreds of years the plant has been propagated in cultivation asexually by dividing the rhizomes. As a result, it has lost its ability to reproduce sexually and produce seed. Although some botanists believe its country of origin is India or Southwest Asia, it is not found in the wild.

Ginger is cultivated in the tropics

from sea level to 4,500 feet. It requires an annual rainfall of 60 inches or more, preferably with a short, dry period, high temperatures and a fertile or well-manured soil. It cannot withstand waterlogging. The ginger-producing area of Jamaica, for example, is in the mountains of Clarendon and East Manchester at altitudes of 1,300 to 2,700 feet. The area has an annual rainfall of 70 inches and a mean annual temperature of 74°F. The soils are clay loams or conglomerates, and the slopes are often steep, which assists drainage but often leads to erosion.

Ginger is propagated by divisions of the rhizome, which are planted on ridges 12 to 15 inches apart. The harvesting is done nine to ten months after planting when the leaves begin to yellow. The yields vary, but under favorable conditions 5,000 to 9,000 pounds of rhizomes, or so-called green ginger, may be obtained from one acre. Green ginger yields twenty to thirty percent of its weight in dry ginger.

Methods of preparing ginger rhizomes for market vary from country to country. Generally, the rhizomes are cleaned of all adhering matter by washing and then spread out on some framework to dry slowly in the sun. This usually takes six to eight days. Some producers immerse the rhizomes in hot or boiling water and then remove their skin by scraping or peeling before drying. Scraping is thought by some to be a better method than peeling because of the probable loss of aromatic constituents through accidental cutting into the tissue beneath the skin.

Ginger is available in markets whole, cracked (broken into bits) or ground. Coated, unpeeled or black ginger is simply the dried rhizomes with their coat or skin still on. Uncoated, peeled or white ginger is the dried rhizomes with the coat removed by scraping or peeling. Uncoated ginger is often subject to bleaching, either from the dioxide



Rhizomes of *Z. officinale* showing growth buds.

fumes of burning sulfur or by immersion for a short time in a solution of chlorinated lime. Preserved ginger is made from fleshy rhizomes boiled with sugar and then packed in syrup. Crystallized ginger is produced the same way, but is dried and dusted with sugar. Preserved and crystallized gingers are now chiefly exported from Hong Kong and Australia.

The annual world production of dried ginger averages about 45,000,000 pounds, of which 50 percent or more is consumed by the producing countries. China is believed to be the largest producer. Its production figures, however, are not available. Other major producers are India and Taiwan, followed by Nigeria, Jamaica, Sierra Leone, Haiti and Australia. The leading importing countries are the United Kingdom, the Arab countries, and the United States. The United States imports about 4,000,000 pounds of dried ginger annually.

Ginger rhizomes are chiefly valued for their pungent, aromatic qualities. The pungency is due to an oleoresin which contains gingerol. Because there is more of it immediately underneath the skin, the amount present is reduced if the skin is pared off. Its content in fresh rhizomes varies from 0.4 to 3.1 percent, the highest being in African ginger and the lowest in Jamaican. It is obtained from ground ginger by solvent extraction. The aroma comes from an essential oil which contains zingiberene, camphene, phellandrene, borneol, cineol and citral. The oil is obtained by steam distillation.

In addition to its well-known culinary values, ginger is also believed to possess medicinal virtues. It is widely used in local medicine in China, India, and the Far East. According to Chinese medical literature, fresh ginger stimulates the digestive organs, quiets nausea, checks coughs, acts as a carminative and as an astringent in the treatment of dysentery and is an antidote for mushroom poisoning. The ginger skin is used to clear opaqueness of the cornea, and the juice from the leaves is drunk as a digestive stimulant. The essence is used as an antiseptic, antimalarial and expectorant. During ancient and medieval times, ginger was also widely used medicinally in Europe. Culpepper, in his 1653 herbal, tells us that ginger helps digestion, warms the stomach, heats the joints, clears the sight, and is profitable for old men. Like many other spices, ginger was believed to have aphrodisiac properties. Henry VIII of England is said to have valued the medicinal and aphrodisiac virtues of ginger highly.

Ginger can be grown outdoors in Southern California. Fresh rhizomes, or so-called "roots," are available in some grocery stores in early spring. They should be divided into one- to two-inch long sections, each having at least one developing growth bud, and planted approximately one inch



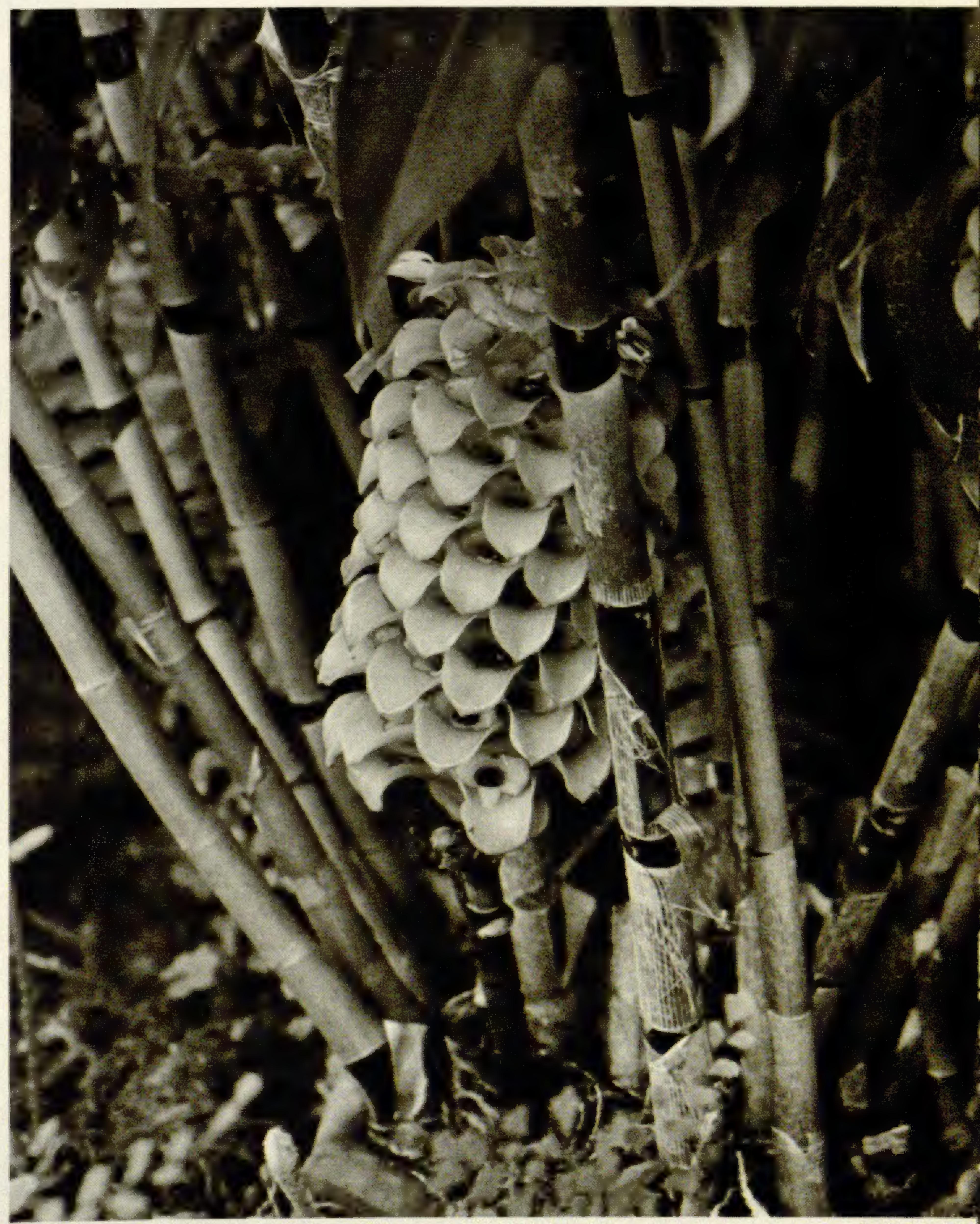
Shell ginger (*Alpinia zerumbet*)



Yellow ginger (*Hedychium flavum*)



Kahili ginger (*Hedychium gardnerianum*)



Pineapple ginger (*Tapeinochilus pungens*)
This plant can be seen in the Arboretum Tropical Greenhouse.

LOS ANGELES STATE AND COUNTY ARBORETUM, Arcadia

JANUARY 13 — 8 p.m.

Theodore Payne Foundation Lecture
"California Flora After a Fire"
Geoff Burleigh, California Native Flora Photographer

JANUARY 21, 22 — Sat. 3 to 5 p.m. Sun. 9 a.m. to 5 p.m.

Iris Show
Presented by Southern California Iris Society

JANUARY 28, 29 — 9 a.m. to 5 p.m.

Bonsai Show
Presented by Baiko-en Bonsai Kenkyukai

FEBRUARY 18, 19 — Sat. 1 to 5 p.m. Sun. 9 a.m. to 5 p.m.

Camellia Show
Presented by Temple City Camellia Society

MARCH 25, 26 — Sat. 1 to 5 p.m. Sun. 9 a.m. to 5 p.m.

Aril Show
Presented by Aril Society International

CALENDAR

JANUARY, FEBRUARY, AND MARCH

DESCANSO GARDENS, La Canada

JANUARY 14 — 1 to 4 p.m.

Annual Rose Pruning Demonstration
Presented by Pacific Rose Society

MARCH 4, 5 — Sat. 12 to 5 p.m. Sun. 9 a.m. to 5 p.m.

Camellia Festival
Presented by Southern California Camellia Council

MARCH 18, 19 — Sat. 12 to 5 p.m. Sun. 9 a.m. to 5 p.m.

Daffodil Show
Presented by Southern California Daffodil Society

SOUTH COAST BOTANIC GARDEN, Palos Verdes Peninsula

JANUARY 22 — 2 to 4 p.m.

Rose Pruning Demonstration
Presented by South Coast Rose Society

JANUARY 28, 29 — Sat. 1 to 5 p.m. Sun. 9 a.m. to 5 p.m.

Camellia Show
Presented by South Coast Camellia Society

MARCH 11 — 9 a.m. to 5 p.m.

"Amigos del Jardin"
Childrens Day
Presented by South Coast Botanic Garden Foundation

MARCH 30, 31 — 9 a.m. to 5 p.m.

Flower Show
Presented by Costa Verde District of the Southern California Garden Club Incorporated

deep. The soil should be kept moist, but heavy watering should be avoided until the rhizomes start to grow. Rhizomes can be harvested several months after planting. In winter, when the plants become dormant, the rhizomes may rot in heavy, wet soil.

There are approximately 700 species in the ginger family (*Zingiberaceae*), many of which are planted in Hawaii and other tropical countries for their beauty. Only a few species are cultivated in Southern California, among them white, yellow, kahili and shell gingers.

White ginger, butterfly ginger, or garland flower (*Hedychium coronarium*) has white, very fragrant flowers which are produced in spikes above the rich green foliage in late

summer or early fall. It is one of the most popular of all garden gingers. Yellow ginger (*Hedychium flavum*) is somewhat similar but its yellow flowers are not nearly as fragrant. The flowers of both gingers are used for leis in Hawaii and in the countries of northeastern Asia. Kahili ginger (*Hedychium gardnerianum*) produces the most spectacular flowerheads which, with their red stamens against a background of yellow petals, resemble kahilis, an item that was part of the regalia of early Hawaiian chieftains. A kahili was made from a pole, near the top of which were affixed long feathers from certain large birds, forming a cylindrical head. This was carried like a banner with the chieftain to announce his presence wherever he

went. Shell ginger (*Alpinia zerumbet*) has white flowers tinged with purple, and yellow crinkled lips variegated with red and brown. All of these gingers are not too difficult to grow. They need soil high in organic matter, plenty of moisture and heat during the growing period and light shade.

Wild ginger (*Asarum caudatum*), a member of the birthwort family (*Aristolochiaceae*), is found in the moist, shaded woods of the northern United States and Canada and is not related to the true gingers. It grows close to the ground and has heart- or kidney-shaped leaves and brownish-purple, solitary flowers.

Dr. Leonid Enari is a senior biologist on the Arboretum staff.